

REMARKS

Claims 1-7 and 9-14 were pending in this application, claims 1, 3, 4, 6/1, 6/3, 7, 9, 13 and 14 having been allowed, claim 11 having been objected to only as being dependent upon a rejected base claim. Claims 2, 5, 6/2, 10 and 12 have been rejected. Claims 11 and 12 have been cancelled without prejudice to or disclaimer of the subject matter presented therein. Claims 2 and 10 have been amended. Claims 1, 2, 10 and 13 are independent.

The Examiner is thanked for the allowance of claims 1, 3, 4, 6/1, 6/3, 7, 9, 13 and 14, and the indicated allowability of claim 11. Allowed claims 1, 3, 4, 6/1, 6/3, 7, 9, 13 and 14 have been maintained unchanged, and so are believed to remain allowable at least for the reasons already given. The subject matter of claim 11 has been introduced into parent claim 10, and so claim 10 is believed to be allowable (claim 11 has been cancelled).

By way of example, and not limitation, support for the change to claim 2 can be found, for example, at page 6, ¶ [0067] of the published application. This paragraph states in part "When it is intended not only to remove or rinse out the flexographic ink remaining in the ink supply tubing 20 and the ink recovery tubings 22 and 24, but also intended to reuse the recovered flexographic ink, the amount of water being supplied can be adjusted depending upon the measurements of the water flow meters 66A, 66B and 66C".

The Objection to the Claims

Claim 11 has been objected to only as being dependent upon a rejected base claim.

Claim 11 has been cancelled, rendering this rejection moot.

The subject matter of claim 11 has been incorporated into parent claim 10, and so claim 10 is believed to be allowable for the same reasons as claim 11.

Accordingly, favorable reconsideration and withdrawal of this objection are respectfully requested.

**The Rejections Under
35 U.S.C. § 102**

Claims 10 and 12 have been rejected under 35 U.S.C. § 102(b) as being anticipated by Japanese Patent Appln. 11-034302 to Sugimoto. Applicant respectfully traverses this rejection and submits the following arguments in support thereof.

The cancellation of claim 12 renders moot the corresponding portion of this rejection.

Claim 10 has been revised to incorporate the features of claim 11, which the Examiner said avoid the art of record.

Accordingly, Applicant submits that claim 10 is patentable over Sugimoto for the same reasons as claim 11.

Claim 12 has been rejected under 35 U.S.C. § 102(b) as being anticipated by Japanese Laid-Open Patent Appln. No. 58-142852 to Hirose¹.

Given the cancellation of claim 12, this rejection is now moot. Accordingly, withdrawal of this rejection is proper.

¹ The reference in the Office Action to JP 58-142652 appears to be in error, since no such reference is of record in this application. Furthermore, JP 58-142652, entitled "Receiver", is directed to signal processing, and has nothing to do with printing, whereas JP 58-142852, cited in the Information Disclosure Statement filed January 20, 2006, is entitled "Method and Apparatus for Supplying and Washing Ink Liquid to Ink Roller in Printer", and relates to cleaning a printer.

**The Rejections Under
35 U.S.C. § 103**

Claims 2, 5 and 6/2 have been rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 5,003,877 to Yano et al. in view of Sugimoto. Applicant respectfully traverses this rejection and submits the following arguments in support thereof.

Applicant's invention, as described in claim 2, involves a printing machine having an ink reservoir, an ink supply source, and at least one ink delivery path connecting the ink reservoir to the ink supply source so that ink from the ink supply source can be supplied via the ink delivery path to the ink reservoir and accumulated therein for printing. An air supply supplies air into the ink delivery path with a flow rate and/or flow volume sufficiently large enough so that air flows toward the ink supply source in a direction away from the ink reservoir and so removes ink remaining on an inner surface of the ink delivery path. The air supply transfers ink between the ink reservoir and ink supply source via the ink delivery path at least one of (a) before and (b) during the printing operation, while the air supply removes ink remaining on the inner surface of said delivery path for **reuse** after ink is recovered from the ink reservoir to the ink supply source.

The Office Action **admits** that Yano does not teach an air supply which supplies air into the ink delivery path with a flow rate and/or flow volume large enough so that air flows toward the ink supply source (pages 3-4).

Applicant also respectfully submits the Office Action is in error - Yano does **not** disclose "ink in the reservoir being sucked back into the ink supply source to force the ink

remaining on the inner surface of the ink delivery tubing to flow towards the ink supply source" (Office Action, page 3).

In Yano, as shown in Fig. 1, a pump 4 provided on a recovery tube 6 sucks up ink from an ink reservoir due to a negative pressure, so that during the ink recovery process, ink is recovered from the ink reservoir to an ink source 18 through the ink recovery tube 6 by means of the pump 4. Yano discloses that ink in the ink recovery tube is removed and discarded during the ink recovery process, but does not even suggest that ink remaining on the inner surface of the delivery path is removed for reuse after ink is recovered from said ink reservoir to said ink supply source, as is set out in the claimed invention..

Yano teaches that cleaning liquid is supplied immediately **after** the ink recovery process (column 5, line 66 to column 6, line 32). Consequently, any ink remaining on the inner surface of the tube is not removed for reuse, but rather, will be present in the waste cleaning liquid that has both cleaning liquid and the removed ink, and which waste cleaning liquid is discharged, not reused.

Put another way, Yano clears ink first by using a recovering pump to transfer ink from the reservoir (col. 3, lines 66-67), and then by washing. As explained at col. 5, line 29, through col. 6, line 33, Yano teaches flexo ink in the nip between the dams **or in the ink circulation path** is recovered by recovery pump (drawing pump) 4. Yano teaches this **concludes** recovery, because Yano states "[w]hen the present time set in the timer has elapsed and the flexo ink 18 in the nip 2 and the ink circulation path has been collected into the ink reservoir 14a, the timer will give an ink recovery completion signal to the exchanger mechanism." Although Yano then states the electromagnetic valve 21 of the ink washing

device is opened to allow washing liquid to flow through the electromagnetic valve to the ink supply duct to the suction ports and ink recovery ducts to the recovery pump 4, the washing liquid is **discharged** into the bucket and is not **reused**, as claimed (and, as the Office Action admits, Yano uses pumps and liquid to clear ink, not an air supply as claimed).

Although the Office Action contends Sugimoto remedies Yano's deficiencies, Applicants respectfully disagree.

Sugimoto arguably teaches using an injection nozzle to blow a mixture of cleaning liquid and air to remove ink on the inner surface of a tube. However, Sugimoto states that such ink and liquid ("mixed fluid") are discharged "the mixed fluid is discharged into the downstream bucket 14 together with the mixed fluid" (¶ [0017] of the English translation of Sugimoto that already is of record). So Sugimoto does not teach a device that clears and reuses the ink as claimed, meaning Sugimoto suffers from at least the same shortcomings as Yano.

Since neither Yano nor Sugimoto suggest the aspects of this invention that relate to the clearing and reuse of ink, the combination of those references also fails to suggest these aspects of the present invention. Accordingly, the claimed invention patentably distinguishes over the combination of Yano and Sugimoto.

In fact, because both Yano and Sugimoto characterize the cleared ink as waste, those references teach away from this invention.

The remaining rejected claims all ultimately depend from and so incorporate by reference all the features of claim 2, including those features just shown to avoid Yano and Sugimoto. These claims therefore patentably distinguish over the cited art at least for the same reasons as claim 2.

Accordingly, the claims patentably distinguish over the cited references.

Favorable reconsideration and withdrawal of this rejection are respectfully requested.

CONCLUSION

Applicant respectfully submits that all outstanding objections and rejections have been addressed and are now either overcome or moot. Applicant further submits that all claims pending in this application are patentable over the prior art. Accordingly, favorable consideration and prompt allowance of this application are respectfully requested.

No fees are believed to be due in connection with the filing of this paper. Nevertheless, should the Commissioner deem any fee(s) to be now or hereafter due in connection with this application, authority is given to charge all such fees to Deposit Account No. 19-4709.

In the event that there are any questions, or should additional information be required, please contact Applicant's attorney at the number listed below.

Respectfully submitted,

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